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## ABSTRACT

Research indicates that people tend to use only five percent of the capabilities available in word processing software. The major objective of this study was to determine to what extent word processing was used by businesses, what competencies were required by those businesses, and how those competencies were being learned in Mid-South states. A questionnaire was mailed to selected human resource managers in the metropolitan statistical areas of Little Rock, Arkansas; Jackson, Mississippi; New Orleans, Louisiana; Houston, Texas; and Oklahoma City, Oklahoma. Of the 81 usable questionnaires returned, all 81 of the respondents were currently using word processing software packages. WordPerfect was most commonly used, by 62 businesses, followed by 28 using Microsoft Word, and 15 using Q & A. Departments using word processing were: personnel and human resources (33.3%); company-wide (42.0%); administrative (33.3%); accounting (32.1%); and marketing and sales (18.5%). Primary word processing applications used included: letters (96.3%); memos (92.6%); reports (91.4%); envelopes and labels (81.5%); tables (75.3%); newsletters (66.7%); columnar text (64.2%); and electronic mail (45.7%). In responding to what employees who use word processing need to know, 93.8% indicated that basic formatting was the most needed skill, followed by: speller/thesaurus (85.2%); move/copy (79.0%); file (75.3%); disk maintenance (72.8%); graphics (34.6%); and macros (27.2%). Of the businesses using word processing, 50.6% indicated that word processing knowledge was highly desirable in prospective employees; 38.3% indicated that it was desirable. The following 12 tables of data are provided: word processing software used; word processing applications; built-in functions; word processing knowledge areas; file management competencies; format competencies; insert and delete competencies; key competencies; miscellaneous competencies; table competencies; factors considered in selecting software; and type of responding business. (Contains 19 references.) (MAS)

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ED 382 182

## WORD PROCESSING COMPETENCIES

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## WORD PROCESSING COMPETENCIES

### Abstract

Research indicates that people tend to use only about 5 percent of the capabilities available in word processing software. Does this indicate that we are over-buying, under-using, or not exploring our software carefully enough after purchasing it? Perhaps the solution involves additional training or retraining to inform users of the features which are available on their word processing program (Yakal, 1991).

The major objective of this study was to determine to what extent word processing was used by businesses, what competencies were required by those businesses, and how those competencies were being learned in Mid-South states. Word processing competencies were identified by Otto (1991), but had not been verified by businesses using word processing. Competencies needed by business should be included in the business curriculum and courses.

### Review of Literature and Problem Statement

Success in the business world of today requires the ability to function efficiently in a technical environment. According to a 1990-91 survey, 12 percent of strictly typing applications are done on an electronic typewriter, 7 percent are done on a dedicated word processor, and the remaining 81 percent are done on a word processing application running on a computer (Romei, 1992). Since most people will interact with computers at their place of employment, a knowledge of computers and business application software is becoming extremely important in both job performance and career development (Kroenke, 1984). Competent operation of word processing equipment is imperative in this environment which includes networking, electronic mail, spreadsheets, databases, graphics, CAD, and multimedia technology.

The impact of the computer has not yet peaked. Every year computers are becoming less expensive and yet more powerful. Thus, the use of computers is increasing as is the demand for knowledgeable people to operate them (Holley, 1982). Research indicates that expanded computer use, rapid office technology changes, the changing nature of office jobs, new systems and procedures, and new careers related to information processing have resulted in a need for additional basic skills and knowledge for employment in the automated office (Otto, 1991).

Like computers, software packages are developing at an amazing rate (Miles, 1992). Software users are demanding programs that allow the use of a variety of programs that operate together seamlessly. Thus, software houses are designing products around how people actually use them rather than how software engineers think they should use them. Gone are the "roadblocks" that caused inexperienced word processing users difficulty (Miles, 1992).

Word Processing. The word processing software of today is opening new awareness for more people to communicate. Word processing has changed from a single function, stand-alone application to an integral part of a department's information processing needs. Word processing became part of the "bigger plan" when it changed from a secretarial to a professional tool (Barr, 1989). People initially moved from the dedicated systems to personal computers that used word processing software as one application. Those same individuals are now shifting from character-based word processing software to packages incorporating graphical user interfaces (GUIs). The introduction of Windows 3.0 (a GUI) inspired a new breed of word processors having the ability to use the word processor to import and manipulate graphics along with the classical text handling functions available to the operator. However, this equipment came with a price—more powerful, more expensive computer systems (Yakal, 1991).

In the PC environment of today, people can produce things like newsletters with graphics and other multicolumn documents. Even internal reports, which are not usually eye appealing, are becoming so attractive that the data jumps out at you (Yakal, 1991). Word

processing software is now opening new avenues for more people to communicate (Yakal, 1991).

Word processing has affected all levels of productivity. On an individual basis, it has allowed for efficiency gains of individual workers. Work flow has changed as more professionals use the tool to initially develop a document and often send it to a secretary for final editing, formatting, and printing. Work group productivity has also been affected. Word processing was often the first form of groupware available on local area networks, thus allowing all users in a department or group to share documents whose management became a key concern as they were altered and stored in different forms (Barr, 1989).

Concern over document management escalated into the development of information management as word processing grew from the work group to the enterprise-wide environment. Document interchange and common formatting were required, and word processing software became standardized to reduce these problems (Barr, 1989).

A 1987 study revealed that word processing software was used by 75 percent of the internal auditors responding to the survey, while approximately 38 percent used spreadsheet applications. Word processing is used primarily for report generation (Kaplan, 1991). Ease of revision or editing of text has contributed to the expanded use of word processing (Baker and Pearch, 1987).

Whitmyer (1991) predicts that the major players in software development--Microsoft, Lotus, WordPerfect, and Borland--would expand their product lines to cover all major applications: spreadsheets, databases, word processing, and communications. In business, local area networks (LANs) will give all users access to the same software and data (Whitmyer, 1991). Continued growth is expected in the document and image processing fields, together with project management, databases, spreadsheets, and word processing (Miles, 1992). The addition of graphics and the increased layout versatility has expanded the use of desktop publishing software (Wormald, 1989).

The Windows word processing package has spawned a new division of word processing software, providing an opportunity for word processing specialists to increase their worth by mastering the new technology (Wormald, 1989). Yakal (1991) reported that the computer world was moving toward the Windows environment and some retraining would be needed. The built-in document conversion feature of the new Windows made "the switch" even simpler.

Competencies. Research indicates that people tend to use only about 5 percent of the capabilities available in word processing software. Does this indicate that we are over-buying, under-using, or not exploring our software carefully enough after purchasing it? Perhaps the solution involves additional training or retraining to inform users of the features which are available on their word processing program (Yakal, 1991).

Otto's (1991) survey rated the importance of 285 competencies to identify those necessary for an applications course. Results indicated eight competencies which were **essential** for inclusion in an applications course and seven competencies which were important for inclusion in a word processing course. The essential competencies included: keyboarding, entering text, editing, inserting and deleting characters, format, file management, printing, and miscellaneous (help menu). The **important** competencies include: keyboarding, editing, confirm, format, file management, printing, and miscellaneous (Otto, 1991). Table 1 and Table 2 in Appendix A provide detailed listings of the study's competencies.

### Objectives

The major objective of this study was to determine to what extent word processing is used by businesses, what competencies were required by those businesses, and how these competencies were being learned in Mid-South states. Word processing competencies had been identified by Otto (1991), but had not been verified by businesses using word processing. Competencies needed by business should be included in the business curriculum and courses.

Methodology

The procedures for this research project included: 1) development of a questionnaire; 2) validation of the questionnaire; 3) appropriate revisions of questionnaire; 4) mailing of questionnaire to selected human resource managers in the Metropolitan Statistical Areas of Little Rock, Arkansas; Jackson, Mississippi; New Orleans, Louisiana; Houston, Texas; and Oklahoma City, Oklahoma; 5) one follow-up letter to the questionnaires; 6) processed received data using statistical analysis; 7) analyzed, interpreted, and compared processed data.

Findings

Of the 81 usable questionnaires returned (661 mailed), all 81 of the respondents were currently using word processing software packages. The number of employees using word processing ranged from 1 to 4,500 with an average of 212.

As shown in Table 1, 62 businesses (76.5 percent) commonly used WordPerfect. Microsoft Word and Q & A were the second and third most commonly used word processing software but by less than 30 percent.

| TABLE 1<br>Word Processing Software Used |     |         |
|------------------------------------------|-----|---------|
| Software                                 | No. | Percent |
| WordPerfect                              | 62  | 76.5    |
| Microsoft Word                           | 28  | 34.6    |
| Q & A                                    | 15  | 17.9    |
| Professional Write                       | 9   | 10.7    |
| Word Star                                | 8   | 9.5     |
| Ami Pro                                  | 6   | 7.1     |
| Macintosh ASCII                          | 4   | 4.8     |
| Display Write                            | 3   | 3.7     |
| Word for Windows                         | 2   | 2.4     |
| Multi Mate                               | 2   | 2.4     |

Word processing software was used company-wide by 34 (42.0 percent) of the respondents using word processing software. Twenty-seven (33.3 percent) of the businesses responding were using word processing software in their personnel and human resource management departments. Other identified departments using word processing software were: Administrative 27 (33.3 percent), Accounting 26 (32.1 percent), and Marketing and Sales 15 (18.5 percent).

The businesses had been using word processing software an average of eight years nine months with some businesses having used them as long as they have been available.

In response to questions regarding the uses of word processors by the businesses, the primary applications were letters (96.3 percent), memos (92.6 percent), and reports (91.4 percent). Other high uses included envelopes and labels, tables, newsletters, columnar text, and e-mail. Table 2 identifies the applications and the responses by businesses.

| TABLE 2<br>Word Processing Applications |     |         |
|-----------------------------------------|-----|---------|
| Application                             | No. | Percent |
| Letter                                  | 78  | 96.3    |
| Memos                                   | 75  | 92.6    |
| Reports                                 | 74  | 91.4    |
| Envelopes and Labels                    | 66  | 81.5    |
| Tables                                  | 61  | 75.3    |
| Newsletters                             | 54  | 66.7    |
| Columnar Text                           | 52  | 64.2    |
| Electronic Mail                         | 37  | 45.7    |

From the business responses to the use of built-in functions in word processors, spellcheck and centering functions were used the most by 77 (95.1 percent) each. The underline and bold functions were next with 76 (90.5 percent) each. The built-in function for tables of authorities/generations were used the least by only 14 (17.3 percent). Table 3 compares the uses of built-in functions by the businesses.

TABLE 3  
Built-In Functions

| Functions                        | No. | Percent |
|----------------------------------|-----|---------|
| Spellcheck                       | 77  | 95.1    |
| Center                           | 77  | 95.1    |
| Underline                        | 76  | 93.8    |
| Bold                             | 76  | 93.8    |
| Tabs                             | 75  | 92.6    |
| Page Number                      | 70  | 86.4    |
| Move and Copy                    | 70  | 86.4    |
| Font Changes                     | 68  | 84.0    |
| Headers and Footers              | 64  | 79.0    |
| Merge Documents                  | 62  | 76.5    |
| Date code                        | 55  | 67.9    |
| Line Draw                        | 52  | 66.7    |
| Search and Replace               | 52  | 66.7    |
| Thesaurus                        | 50  | 61.7    |
| Tables                           | 49  | 60.5    |
| Select                           | 48  | 59.3    |
| Outline                          | 46  | 56.8    |
| Graphics                         | 46  | 56.8    |
| Macros                           | 39  | 48.1    |
| Styles                           | 37  | 45.7    |
| Index/List Generators            | 31  | 38.3    |
| Table of Contents/Generations    | 29  | 35.8    |
| Table of authorities/Generations | 14  | 17.3    |

In responding to what employees who use word processing needed to know, 76 businesses (93.8 percent) indicated that basic formatting was the most needed skill. The least needed skill was macros by 22 (27.2 percent). Macros and graphics were the only skills that

were below 70 percent. Table 4 shows the skills employees need to have according to the businesses responding.

| TABLE 4<br>Word Processing Knowledge Areas |     |         |
|--------------------------------------------|-----|---------|
| Need to Know                               | No. | Percent |
| Basic Formatting                           | 76  | 93.8    |
| Speller/Thesaurus                          | 69  | 85.2    |
| Move/Copy                                  | 64  | 79.0    |
| File                                       | 61  | 75.3    |
| Disk Maintenance                           | 59  | 72.8    |
| Graphics                                   | 28  | 34.6    |
| Macros                                     | 22  | 27.2    |

The editing competencies had been identified by Otto as correcting by backspacing, deleting to the left, deleting to the right, keying over existing text, searching for words, searching and replacing text, and undeleting text. Correcting by backspacing was considered essential by 59.3 percent with only 2.5 percent considering it not important. Keying over existing text was considered essential by 40.7 percent with not important indicated by only 2.5 percent. Deleting to the right was considered important or better by 95.1 percent while deleting to the left was 92.6 percent. Only 27.2 percent considered undeleting text as essential but had a total of important or better of 90.1 percent. Searching and replacing text was considered important or better by 86.4 percent, and searching for words by 85.2 percent.

More than 50 percent of the respondents considered using return or enter, keying capital letters, and using the wrap around feature as essential. Using return or enter received no not important responses. Keying capitals and using wrap around received only 1 not important response each.

For the file management competencies, storing a document to disk and retrieving a document file from storage were rated essential by more than 50 percent of the respondents. Those file management competencies rated as important or better by more than 90 percent of the respondents were storing a document to disk, storing a document to disk and quitting, retrieving a document file from storage, storing a document to disk and resuming, copying a document file, deleting a document file from storage, loading or saving part of a document file, and renaming document files. Table 5 lists the file management competencies rated as important or better.

| TABLE 5<br>File Management Competencies  |     |         |
|------------------------------------------|-----|---------|
| File Management                          | No. | Percent |
| Store to Disk                            | 79  | 97.5    |
| Store to Disk and Quit                   | 78  | 96.3    |
| Retrieving File from Storage             | 77  | 95.1    |
| Store to Disk and Resume                 | 77  | 95.1    |
| Copying a File                           | 77  | 95.1    |
| Delete File from Storage                 | 76  | 93.8    |
| Load or Save Part of File                | 74  | 91.4    |
| Display Files on Disk                    | 74  | 91.4    |
| Rename Files                             | 74  | 91.4    |
| Store to Disk and Switch to Another File | 73  | 90.1    |
| Consolidate Two Files                    | 71  | 87.7    |
| Store to Disk with Overwrite             | 69  | 85.2    |
| Abandon a File                           | 68  | 84.0    |
| Lock or Protect File                     | 67  | 82.7    |
| Change Data Drive                        | 66  | 81.5    |

Otto had identified 23 formatting competencies. Only adjusting margins and setting left and right margins were considered essential by 50 percent or more of the respondents. All 23 competencies were considered as important or better by 50 percent or more of the respondents. The formatting competencies rated as important or better by the respondents are shown in Table 6.

TABLE 6  
Format Competencies

| Formatting                 | No. | Percent |
|----------------------------|-----|---------|
| Adjust Margins             | 80  | 98.8    |
| Insert Blank Lines         | 80  | 98.8    |
| Set Left and Right Margins | 79  | 97.5    |
| Insert Page Break          | 79  | 97.5    |
| Indent Paragraph           | 79  | 97.5    |
| Set Top and Bottom Margins | 79  | 97.5    |
| Center Headings            | 79  | 97.5    |
| Indent Left and Right      | 78  | 96.3    |
| Justify Margins            | 78  | 96.3    |
| Double Space               | 78  | 96.3    |
| Set Tabs                   | 77  | 95.1    |
| Adjust Line Spacing        | 77  | 95.1    |
| Center Page                | 75  | 92.6    |
| Adjust Word Wrap           | 74  | 91.4    |
| Margin Release             | 74  | 91.4    |
| Tab Align                  | 73  | 90.1    |
| Work with Indent Tabs      | 73  | 90.1    |
| Set Decimal Tabs           | 72  | 88.9    |
| Set Characters per Inch    | 70  | 86.4    |
| Set Lines per Inch         | 70  | 86.4    |
| Work with Decimal Tabs     | 66  | 81.5    |
| Work with Line Draw        | 65  | 80.2    |
| Super/Subscript            | 64  | 79.0    |

Of the inserting and deleting competencies, only inserting and deleting a sentence and moving a block were rated as essential by 50 percent or more of the respondents. All 10 of the identified inserting and deleting competencies were rated as important or better by more than 90 percent of the respondents. Table 7 identifies those business responses rated as important or better on the inserting and deleting competencies.

TABLE 7  
Insert and Delete Competencies

| Insert and Delete       | No. | Percent |
|-------------------------|-----|---------|
| Sentence                | 79  | 97.5    |
| Move Block of Text      | 79  | 97.5    |
| Copying Text            | 78  | 96.3    |
| Copying Blocks          | 78  | 96.3    |
| Reformat Text           | 78  | 96.3    |
| Move Text               | 77  | 95.1    |
| Delete Block of Text    | 76  | 93.8    |
| Delete to End of Line   | 75  | 92.6    |
| Insert and Delete Words | 75  | 92.6    |
| Delete to End of Page   | 75  | 92.6    |

Of the 12 keying competencies, three were identified as essential by 50 percent or more of the responding businesses. Those competencies were creating a document, cursor movement keys, and function keys. All of the competencies were rated as important or better by more than 75 percent of the respondents. Table 8 lists the keying competencies and the percentage of respondents rating them as important or better.

TABLE 8  
Key Competencies

| Key                            | No. | Percent |
|--------------------------------|-----|---------|
| Create Document                | 78  | 96.3    |
| Cursor Movement Keys           | 78  | 96.3    |
| Underline Text                 | 77  | 95.1    |
| Boldface                       | 77  | 95.1    |
| Center Headings                | 76  | 93.8    |
| Function Keys                  | 75  | 92.6    |
| Center Lines                   | 75  | 92.6    |
| Create Forms                   | 73  | 90.1    |
| Lines: Status, ruler, and menu | 72  | 88.9    |
| Hard Spaces & Returns          | 70  | 86.4    |
| Go To Command                  | 65  | 80.2    |
| Numbered Lists                 | 63  | 77.8    |

None of the miscellaneous competencies were rated as essential by 50 percent or more of the business respondents. The spelling function and Help were rated as important or better by more than 90 percent of the businesses. Only boiler plating was not rated as important or better by 50 percent or more of those responding. Table 9 identifies the miscellaneous competencies and the percent of response by the businesses of important or better.

TABLE 9  
Miscellaneous Competencies

|                                        |    |      |
|----------------------------------------|----|------|
| Perform Spelling Function              | 77 | 95.1 |
| Help Menu                              | 74 | 91.4 |
| Work with Text or Data Files           | 72 | 88.9 |
| Perform Thesaurus Function             | 68 | 84.0 |
| Work with Columns and Column Functions | 68 | 84.0 |
| Headers and Footers                    | 66 | 81.5 |
| Merging Two or More files              | 66 | 81.5 |
| Perform Style Functions                | 66 | 81.5 |
| Composing Text                         | 65 | 80.2 |
| Cancel Key                             | 65 | 80.2 |
| Upper/Lower Case Convert               | 65 | 80.2 |
| Perform Grammar Functions              | 64 | 79.0 |
| Work with Multiple Files on the Screen | 64 | 79.0 |
| Work with Hyphenation                  | 63 | 77.8 |
| Endnotes or Footnotes                  | 63 | 77.8 |
| Sort Function                          | 62 | 76.5 |
| Insert Text Variables                  | 61 | 75.3 |
| Work with Windows                      | 60 | 74.1 |
| Perform Math Functions                 | 57 | 70.4 |
| Perform Automatic Table of Contents    | 56 | 69.1 |
| Defining Macros                        | 54 | 66.7 |
| Work with Orphans                      | 52 | 64.2 |
| Perform Automatic Indexing             | 42 | 51.9 |
| Boilerplating                          | 36 | 44.4 |

Printing a document was rated as essential by 69.0 percent of the respondents, while knowing the printer setup was essential for 50.0 percent. No other printing competencies were rated as essential by 50 percent or more of the respondents. Of these competencies, printing a

document, printing multiple copies, printing the current page, and printing part of a document were rated as important or better by more than 90 percent of the businesses. No printing competency was rated important or better by less than 50 percent of those responding. Table 10 shows the printing competencies and businesses ratings of important or better.

TABLE 10  
Table Competencies

| Print                                      | No. | Percent |
|--------------------------------------------|-----|---------|
| Print a Document                           | 77  | 95.1    |
| Print Multiple Copies                      | 75  | 92.6    |
| Print Current Page                         | 75  | 92.6    |
| Print Part of a Document                   | 73  | 90.1    |
| Print Set-up                               | 72  | 88.9    |
| Print from Disk                            | 71  | 87.7    |
| Page Number Position Set-up                | 71  | 87.7    |
| Print Screen                               | 70  | 86.4    |
| Print More than One Document               | 69  | 85.2    |
| Print Envelopes                            | 69  | 85.2    |
| Print Different Sized Paper                | 68  | 84.0    |
| Conditional End of Page                    | 68  | 84.0    |
| Print with Sheet Feeder                    | 67  | 82.7    |
| Work with Different Fonts and Enhancements | 67  | 82.7    |
| Work with Automatic Pagination             | 67  | 82.7    |
| Work with Printer Commands                 | 64  | 79.0    |
| Print to Disk                              | 63  | 77.8    |

Ease of learning and ease of using were the primary factors considered when selecting word processing software with 69.0 percent and 64.3 percent respectively. Ease of interfacing, price, and speed of retrieval were the other factors considered by 50 percent or more of the respondents in selecting a word processing software package. The factors considered in selecting software are listed in Table 11 with the ratings by the responding businesses.

TABLE 11  
Factors Considered in Selecting Software

| Factors                        | No. | Percent |
|--------------------------------|-----|---------|
| Ease of Learning               | 58  | 71.6    |
| Ease of Using                  | 54  | 66.7    |
| Ease of Interfacing            | 45  | 55.6    |
| Speed of Retrieval             | 43  | 53.1    |
| Price                          | 43  | 53.1    |
| Speed of Copying               | 39  | 48.1    |
| Speed of Saving                | 39  | 48.1    |
| Ease of Technical Support      | 37  | 45.7    |
| Speed of Speller and Thesaurus | 34  | 42.0    |
| Speed of Moving                | 33  | 40.7    |
| Ease of Documentation          | 32  | 39.5    |
| Speed of Sorting               | 30  | 37.0    |
| Other                          | 14  | 17.3    |

Forty-one (50.6 percent) of the businesses using word processing indicated that word processing knowledge was highly desirable in prospective employees, and 31 businesses (38.3 percent) indicated it was desirable. Five (6.2 percent) of the businesses indicated it was not needed, but none of the respondents indicated it would negatively affect a prospective employee's opportunity for employment.

In promotion and granting merit raises, only 18 (22.2 percent) indicated that word processing knowledge would be highly desirable while 39 (48.1 percent) indicated it would be desirable. Seventeen (21.0 percent) indicated it was not needed, and 2 (2.5 percent) of the businesses felt it would negatively affect an employee's prospects.

When asked if word processing usage would increase in their businesses, 67 (82.7 percent) indicated it would. Training was the primary difficulty in word processing usage by 17 (21.0 percent) of the businesses. Other difficulties identified included: hardware insufficiency and incompatibility, lag time between installation and availability of training, and losing data.

On the job (79.0 percent) was where most employees received training on word processing software. The other principal means of learning word processing software reported were technical/community colleges by 14 (17.3 percent), vocational schools by 11 (13.6 percent), and four-year colleges or universities, with high schools, and adult learning centers by 8 each (9.9 percent).

Demographics

Businesses indicating use of word processing software were 81 (100.0 percent). A breakdown of the types of businesses responding and of those using word processing is shown in Table 12.

| TABLE 12<br>Type of Responding Businesses |     |         |
|-------------------------------------------|-----|---------|
| Type of Business                          | No. | Percent |
| Manufacturing                             | 29  | 35.8    |
| Hospital                                  | 14  | 17.8    |
| Utility                                   | 8   | 9.9     |
| Insurance                                 | 5   | 6.2     |
| Retail-Wholesale                          | 5   | 6.2     |
| Construction                              | 4   | 4.9     |
| Distribution                              | 2   | 2.5     |
| Transportation                            | 2   | 2.5     |
| Finance                                   | 2   | 2.5     |
| Communications                            | 2   | 2.5     |
| Business Service                          | 2   | 2.5     |
| Legal Service                             | 1   | 1.2     |
| Real Estate                               | 1   | 1.2     |
| Communications                            | 1   | 1.2     |
| Other                                     | 3   | 3.7     |

The responding businesses indicated that 52 (61.9 percent) were located in metropolitan areas, and 51 (98.1 percent) used word processing software. Of the 21 (25.0 percent) suburban businesses, 20 (95.2 percent) used word processing software while 7 (87.5 percent) of the 8 (9.5 percent) rural businesses used them.

The 81 responding businesses employed 81,281 employees with 14,187 (17.5 percent) of them using word processing software. This is an average of 212 employees using word processing per business. The businesses ranged in size from 14 to 18,000 employees with the average being 1,084. The mode was 1,000 employees with 6, and the midpoint of the range was 335.

### Summary

Word processing was used by 100 percent (81) of the responding businesses with WordPerfect being used by 76.5 percent (62) of these businesses. Microsoft Word was used by 34.6 percent (28) responding businesses. Other software packages were used by 18 percent or less of the respondents.

Word processing was used company wide by 42 percent (34) of the responding businesses. Thirty-three percent (27) of the respondents used word processing software in their personnel and human resource departments.

The major difficulty reported in the use of word processing software was lack of training. Most employees have been trained on-the-job and often that was self-training. As word processing usage is expected to increase, the need for training will continue to grow. In selecting the company's current word processing software, ease of learning and ease of use were identified as the primary factors considered by 69 percent and 64.3 percent of the respondents respectively.

Primary applications of word processing by respondents were letters (96.3 percent), memos (92.6 percent), and reports (91.4 percent). Other high uses included envelopes and labels, tables, newsletters, columnar text, and e-mail.

The built-in functions that were used most by responding businesses were the spell check and centering functions which were each used by 95.1 percent of respondents. Other built-in functions used by 50 percent or more of businesses were underline, bold, tabs, page number, move and copy, font changes, headers and footers, merge documents, date code, line draw, search and replace, and thesaurus.

All of the competencies identified by Otto were rated by respondents as important or better by 45 percent or more of the responding businesses. Of those competencies, the businesses identified only 15 as essential by 50 percent or more of the word processing users. Those identified as essential competencies by respondents include: correcting by backspacing, using return or enter, keyboarding capital letters, using wraparound to enter text, storing document to disk, retrieving document file from storage, storing document to disk and quitting, adjusting margins, setting left and right margins, inserting and deleting sentences, moving a block of text, copying text, creating a document, cursor movement keys, and function keys.

### Recommendations

1. The competencies rated as essential must be included in any word processing course, and the competencies rated as important or better should also be incorporated.
2. Word processing training should be made available to businesses, employees, and prospective employees by appropriate schools and individuals.
3. Because of the widespread use of word processing software and the desirability of its skills, word processing should be taught to all business students as a skill, and word processing applications should be used in appropriate subject areas as a tool.
4. Availability to word processing training should be developed to serve traditional and nontraditional students.
5. Word processing trainers/teachers should identify the needs, develop applicable course content, and offer word processing training to all levels of employees.
6. Word processing courses should be developed for and offered to adult learners with particular attention to the needs of businesses.

7. This research should be replicated on a statewide and a national basis.
8. This research should be replicated in three to five years to determine changes in the requirements and needs of businesses, as well as the status of word processing training.

References

- Barr, Danielle. (1989). Word Processing Is Now Part Of A Larger Plan. The Office. November, 76.
- Baker, T. Randolph., & Pearch, C. Glenn. (1987). A Comparison Of Business Communication Quality Between Computer Written And Handwritten Samples. Journal of Business Communication. Spring 91.
- Holley, Jeanne L. (1982). Word Processing Demands Change In Emphasis. Business Education Forum, 36, 22-24.
- Hotch, Ripley and Pepper, John. (1992). Looking At Words Through Windows. Nation's Business. February 1992, page 28.
- Kaplan, James M., CIA. and Evart, Bob, CIA. (1991). Saying Things Right! Internal Auditor. April, 16-19.
- Kroenke, David M. (1984). Business Computer Systems - An Introduction. Santa Cruz: Mitchell Publishing Inc., 4.
- Kusck, W. Robert., & Anderson-Yates, A. Marcia., (1987). Concepts And Skills For Word Processing. Harcourt Brace Jovanovich Publishers, Orlando, San Diego, Chicago, Dallas.
- Miastkowski, Stan. (1989). Word Publishing For OS/2). Byte. September 1989, page 87-88.
- Miles, Barry. (1992). Tools for the Job. The Banker. May, 142.
- Otto, Joseph. (1991). What Should Be Included In An Integrated Software Course? Office Systems Research Journal. Spring, 53-60.
- Panchak, Patricia L. (1991). Selecting The Right Word Processing Software. Modern Office Technology. May 1991, page 87-88.
- Plotch, Adrienne. (Summer 1993). Office Automation News, PC News And Views From Olsten Staffing Services. Olsten Staffing Services, page 1-4.
- Romei, Lura K. Editor. (1992). Processing Words: Weighing Your Options. Modern Office Technology. August 1992, page 29, 30, 32.
- Shelly, Gary B., and Cashman, Thomas J. (1986). Computer Fundamentals With Application Software. Boston: Boyd and Fraser Publishing Company, 1.
- Thompson, Tom. (1991). Create And Lay Out Document With Taste. Byte. January 1991, page 130.
- Whitmyer, Claude F. (1991). Focus On Software. The Office, 26.
- Wormald, Karen. (1989). Central Word Processing Can Survive With Changes. The Office. November, 32.

Wood, Lamont. (1988). Total Word. Byte. September 1988, page 225, 226, 228.

Yakal, Kathy. (1991). WP Software Takes On Strong DTP Functions. The Office, November, page 94, 112-113.